

ABSTRACT

Introduction: Creating a harmonious proportion when restoring and replacing the teeth is one of the important and critical tasks in esthetic dentistry. Most studies have shown that people are more concerned about missing anterior teeth and their replacement than about posterior teeth as esthetics seem to be of greater importance than function of the teeth. Esthetics in dentistry cannot be justified mathematically, individuals must not be standardised in the same way. Considering the dentofacial specificities of each individual and the various natural teeth proportions during restoration or replacement of the maxillary anterior teeth is important

Key words: Golden proportion, Golden percentage, Recurring esthetic dental proportion

Aim of the study: To study the anterior maxillary teeth proportions of the south Indian population and see if any of the existent anthropometric proportions such as Golden proportion, Recurring Esthetic Dental proportion and Golden percentage can be applied to the oral rehabilitation of this population with the aid of digital photographs and computer analysis.

Materials and Methods: Based on the predetermined inclusion and exclusion criteria, 100 subjects were selected. Students (postgraduates, undergraduates, interneers, technicians), patients and their attendants who visited the Tamil Nadu Govt dental college and hospital, Chennai. All subjects were from various places in the state of Tamilnadu, south India. Standardized frontal images of 50 males and 50 females subjects were captured. Each maxillary anterior tooth was digitally measured. Once the measurements were recorded, the three theories were applied and the data was analysed statistically.

Results: The golden proportion was found to exist only in 14-69% of subjects, least being the left lateral incisor and highest being right canine between perceived maxillary anterior teeth in natural dentition. The value of RED proportion does not remain constant. As one moved distally, this proportion gradually increased the

proportions between the widths of the maxillary anterior teeth were not constant as proposed by the Golden Proportion and the RED Proportion. The Preston Proportion was found to be in concordance with the studied population. The values observed were closer to the Golden Percentage. Considering gender, there was a statistically significant difference. Male patients had teeth with larger dimensions than females

Conclusion: Within the limitation of the study it can be concluded that:

Males have tooth size significantly larger than females. The width and height variables of this sample are consistent with the averages obtained by other authors. The theory of golden percentage was more applicable to the subjects of this study. Golden proportion can be applied in the rehabilitation of maxillary anterior teeth if small changes are made in the values proposed. In order to establish objectively quantifiable width ratio between maxillary anterior teeth, ethnic differences should be taken into consideration. This will also help determine exactly what percentages are truly golden. In addition to this individual cultural characteristics and perception of beauty must be considered.